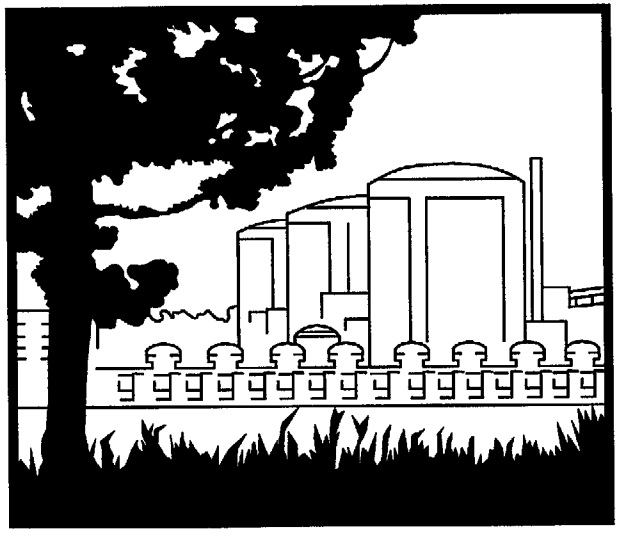
Duke Energy SM

Oconee Nuclear Site



Design Basis Issues

August 23, 2001

Enclosure 2

Design Basis and System Reviews
(From 11/17/98 Presentation)

- Why
  - Gain better / clearer understanding of our design basis
  - Clear up old issues
  - Improve our documentation for use through license renewal / new generation of employees
  - Improve safety
- Outcomes
  - Will continue to uncover issues
  - Will generate needs to interact with NRR

Design Basis and System Reviews

(From 11/17/98 Presentation)

- Direction
  - Will review issues from a risk-informed perspective
  - Will address quickly those issues with safety significance
  - Where appropriate, will change license basis
    - Will require NRR support
  - Where low safety significance, may choose to maintain existing license basis "understanding"
  - Will assure documentation for the future

Design Basis Focus Area

(From 11/13/97 Presentation)

- INITIATIVES:
  - HPI System Review (12/97)
  - Oconee Safety Related Designation Clarification (OSRDC) Project (12/99)
  - SQUG
  - Oconee Service Water Project (7/99)
  - Improved Technical Specifications (3/99)
  - UFSAR Reverification (1/99)
  - Emergency Power Project Closeout (5/01)

ONS Design Basis Group

- Mission
  - Provide a focused review of design basis & implement enhancements to improve design margins and reduce plant risk
- Staffed with Subject Matter Experts
- Scope established based on:
  - Key safety systems
  - Event mitigation strategies
  - Design criteria / Design control
  - Risk insights

Completed Initiatives

(added initiatives in bold)

- HPI/LPI SITA
- OSRDC
- Service Water Project
- Improved Tech Specs
- UFSAR Reverification
- Emergency Power Project
- **EFW Design Study & Submittal**
- **Single Failure Analysis - 9 Key Systems**
- **ECCS Design Study**
- **QA-5**
- **Configuration Management**
- **Review of Risk Significant Operator Actions**
- **Chapter 15 Accident Reanalysis**
- **Oconee Specific Seal LOCA Model**
- **EOP Project**
- **Unit 1 RCP Seal Mod**

Initiatives In Progress

(added initiatives in bold)

- SQUG
- **EFW**
- **Historical Calculation Enhancement**
- **HELB Project**
- **Tornado**
- **Time Critical Operator Actions**
- **EOP 2 Column Format/ TBD Rev. 9**
- **ECCS Modifications**
- **Aux Building Flooding**
- **Control Room Habitability**
- **GL 96-06**
- **Emergency Power System Margin/ Capacity Improvements**
- **Keowee Lake Level**

Project Overview

- Project remains focused on original mission
- Significant contribution to safety accomplished
- Discovery phase resulted in significant scope growth
- Lessons learned factored back into project
- Much work remains

Project/NRC Interface

- Key Elements Include:
  - Agreement on the underlying basis for the project
  - Clear understanding of scope
  - Clear understanding of milestones & schedule
  - Confidence that issues will be identified & appropriately resolved

Interface Challenges

- Inspection activities can create significant project impact
- Processing additional specific issues not necessary
  - Underlying cause already established
  - Not indicative of current performance
- Difficult to communicate context of issues to public

Oconee Perspective

- Underlying issues with ONS Design Basis clearly established
- NRC understands basis for project
- Better communication needed on specific project scope & schedules
- Stakeholder value optimized from inspection focused to confirm project performance

Open Item Status

Issue	Status
Purge Valves (URI 00-05-11)	Valve testing compliant with existing requirements. Procedure revised to remove temporary cover for containment closure. No further actions ongoing.
Loss of 4kV – HELB (URI 00-05-19)	Responded to draft ASP that scenario not risk significant; approved design feature.
High temp in LPI/HPI Rm (URI 00-08-01)	The pumps & motors in the LPI/HPI rooms are operable following a LOCA without the use of the pump room coolers.
Aux Bldg Flood from Non-safety pipes (URI 00-08-02)	Not risk significant. Aux Bldg flood AP issued. Mods being implemented to divert water. Licensing submittal being developed to resolve licensing conflict. Submittal scheduled for 12/28/01.
Flood from cable rm fire suppression (URI 00-08-03)	Not risk significant. Closed head sprinklers being installed.
Blowout Panels (URI 00-08-04)	Issue working in parallel with HELB Project. Calculation being written to assess current plant configuration, input to environmental analysis this fall. Results scheduled by 12/28/01.
CR Flooding (URI 01-08-05)	Modifications being developed to remove any piping over panels.
Inability to align Station ASW (URI 01-08-06)	Procedure revised. Root cause being evaluated as part of degraded cornerstone assessment.